

REMARKS

Favorable consideration and allowance are respectfully requested for claims 1-10 in view of the following remarks.

Claim 8 is amended to reflect that the inner electrodes are connected with a wire. Support for this amendment may be found in the drawings, at least in Figure 4, and in the specification, at least on page 9 at lines 9-11.

The rejections of claims 1-6 under the doctrine of obviousness-type double patenting over claims 1, 3, 16 and 19 of U.S. Patent No. 6,475,653 in view of Takahashi (U.S. Patent No. 4,515,674), Meyers *et al.* (U.S. Patent No. 3,708,220), and the alleged admission of prior art is respectfully traversed. The rejection of claims 1, 4 and 6-8 under 35 U.S.C. § 103 as obvious over Gomez (WO 99/12220) in view of Takahashi is also respectfully traversed. U.S. Patent No. 6,475,653 corresponds to Gomez (WO 99/12220).

The Examiner admits that the '653 patent does not teach, either in the claims or the specification, that the outer electrode encloses at least one end of the inner electrode as is required by Claim 1. Further, the construction of the anode and cathode electrodes in the '653 patent is different from that of the presently claimed invention. In the '653 patent, each of the anode electrode and cathode electrode have an outer current collector which is coated with a catalyst. This arrangement is not provided for in the presently claimed invention.

Takahashi is cited as teaching providing an inner electrode piece within an outer electrode piece. However, Takahashi does not make up for the failure of the '653 patent to teach the claimed invention. Takahashi adds nothing toward meeting the claim limitations of

independent claim 1. As explained in the most recently submitted Reply, Takahashi is concerned with a single electrode for electrode deposition coating. The rejection makes reference to figures 4 and 5 and col. 10, lines 39-56. The structure described therein is a stainless steel bar 11a which is covered by a tube 4a of sintered mass of metal oxide using an adhesive 13. The reference states that because of the stainless steel "there is no possibility that the sintered mass 4a would shed metal ions." See col. 10, lines 53-54. Further, the electrode of Takahashi is provided with only a single terminal 12 which provides for the connection of a single electrical lead to or from the electrode. In contrast, claim 1 recites electrical leads to the inner and outer electrodes for the inlet and outlet of electrons. Thus, a different electrical lead is provided for each of the inner and outer electrodes. These leads are clearly shown in Figure 1 of the present specification as electrical connections 12 and 14. Thus, even assuming, *arguendo*, that one were to try to combine the teachings of Takahashi with the '653 patent, one would not arrive at a compound electrode as required by claim 1, which includes an inner electrode and an outer electrode where each of these electrodes has an electrical lead.

Meyers *et al.* (U.S. Patent 3,708,220) is offered as teaching that the electrical conducting material between the inner and outer electrode may be a liquid or a gel (claims 2 and 3 of the present invention). Meyers does not make up for the failure of the '653 patent and Takahashi to teach that there are electrical leads to the inner electrode and the outer electrode. As a result, the cited combination fails to teach or suggest each and every element of the claimed invention.

Accordingly, claims 1-6 are not properly rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3, 16 and 19 of the '653 patent and the

claims are patentable over the cited combination of Gomez, Takahashi and Meyers *et al.* Similarly, these claims are not obvious in view of the cited combinations of references, as the references fail to teach or suggest each and every limitation of the claims. Reconsideration and withdrawal of these rejections are respectfully requested.

Claims 7 and 8 clearly recite that each of the anode cell and cathode cell include an inner conductor electrode contained in and having at least one end enclosed by an outer conductor electrode. Gomez fails to teach that an outer electrode encloses at least one end of an inner electrode. Just as with claim 1, claims 7 and 8 also require that both the inner and outer electrode are provided with electrical leads. Takahashi does not teach such an arrangement as Takahashi is directed to a different device, as explained above. Accordingly, Takahashi does not make up for the failure of Gomez to teach or suggest every element of claims 7 or 8. Even assuming, *arguendo*, that one were to try to combine Gomez with Takahashi, one would still not arrive at the presently claimed invention. Reconsideration and withdrawal of this rejections are respectfully requested.

The rejection of claim 9 under 35 U.S.C. § 102(b) as anticipated by Mazanec *et al.* (U.S. Patent No. 5,693,212) is respectfully traversed. Claim 9 clearly recites “means to supply a neutral anolyte cell and means to withdraw activated anolyte from the anode cell and means to supply a neutral catholyte to the cathode cell and means to withdraw activated catholyte from the cathode cell”. The Examiner admits that there is no disclosure of means for feeding and withdrawing each of the anolyte and catholyte. In contrast, Mazanec *et al.* teaches the use of a solid electrolyte. See col. 17 lines 13-19 and lines 30-34. Since a solid electrolyte is used, it appears the device does not in fact have a way to feed and withdraw the anolyte and catholyte, and there would be no reason to try to provide any apparatus for

Application No. 09/986,134
Reply dated January 14, 2005
Response to Office Action dated October 14, 2004

supplying and withdrawing an anolyte or catholyte. Accordingly, Mazanec *et al.* fails to teach each and every limitation of claim 9 and cannot anticipate this claim. Reconsideration and withdrawal of the rejection are respectfully requested.

The rejection of claim 10 under 35 U.S.C. § 103(a) as unpatentable over Mazanec *et al.* (U.S. Patent No. 5,693,212) is respectfully traversed. As explained above, Mazanec *et al.* fails to teach all the limitation of claim 9. Accordingly, claim 10, which is dependent from claim 9 and therefore includes all the limitations thereof, is patentable over Mazanec *et al.* for at least the same reasons that claim 9 is patentable over Mazanec *et al.* Further, the Examiner admits that Mazanec *et al.* fails to teach end caps and tangential feeding means. As explained above, Mazanec *et al.* provides no teaching of a way to add or withdraw anolyte or catholyte and in fact lacks any disclosure of anolyte or catholyte. Moreover, there is no teaching or suggestion or anything that would motivate one of skill in the art to provide insulating end caps for the inner electrode or provide means to supply the neutral anolyte tangentially to the anode cell or means to withdraw the activated anolyte tangentially from the anode cell. Accordingly, the reference fails to teach or suggest each and every element of the claimed invention, and the rejection cannot be properly maintained. Moreover, the reference lacks any suggestion or motivation to cause one of skill in the art to try to modify the reference so as to arrive at the presently claimed invention. Reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

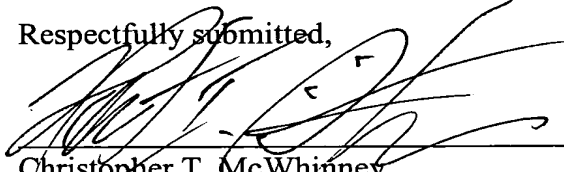
Application No. 09/986,134
Reply dated January 14, 2005
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If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Attorney Docket No. 056284.50645US).

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